

# What are the patterns of service utilization of HIV-infected persons in Virginia\*?

Table 1: Part areas for distribution of Ryan White funds

Part A	Funds eligible metropolitan areas (EMAs), those with a cumulative total of more than 2,000 reported AIDS cases over the most recent 5-year period, and transitional grant areas (TGAs), those with 1,000-1,999 reported AIDS cases over the most recent 5-year period. 75% must be spent for core services**
Part B	Funds States. This includes base and supplemental grants, ADAP and ADAP supplemental grants, and Emerging Communities (EC) grants. In Virginia, the majority of services are provided through five regional consortias that plan and deliver HIV care. At least 75% of all Part B funds must be expended for core medical services.
Part C	Funds Early Intervention Services to reach people newly diagnosed with HIV. 75% must be spent for core services.
Part D	Funds public and private organizations directly to provide support services for women, infants, children & youth, including outreach, prevention, primary and specialty medical care and psychosocial services. Also supports activities to improve access to clinical trials and research for these populations.
Part F	Includes: <ul style="list-style-type: none"> <li>• Special Projects of National Significance that address emerging needs of clients and assist in developing a standard electronic client information data system,</li> <li>• AIDS Education &amp; Training Centers that provide education and training for health care providers who treat people with HIV/AIDS and dental reimbursement and community-based dental partnership programs.</li> <li>• Minority AIDS Initiative that strengthen organizational capacity to expand HIV-related services in minority communities. (HRSA,2007)</li> </ul>

## Introduction

The federal Ryan White HIV/AIDS Treatment Modernization Act of 2006 provides health care for people with HIV disease. Enacted in 1990, it fills gaps in care faced by those with low-incomes and little or no insurance (HRSA, 2007). Majority of this funding is provided to states (57%) then cities (29%) with the remaining funds (14%) provided directly to providers and other organizations (KFF,2007). These funds are distributed across the United States through part areas, which are described in Table 1.

The purpose of this section is to describe the patterns of service utilization of HIV-infected persons in Virginia.

## ADAP Demographics (Table 2)

Between January and December 2006, 3,518 clients were provided FDA approved HIV-related prescription drugs through ADAP in Virginia. Clients were primarily male (69.8%), between the ages of 20-44 (51.6%), and African American (55.9%). Almost all (95.4%) clients received Nucleoside/ Nucleotide Reverse Transcriptase Inhibitors, which are sometimes called the “backbone” of combina-

\* The information provided in this section was obtained from the AIDS Drug Assistance Programs (ADAP) and the Virginia Client Reporting System (VACRS) databases which are maintained by the Virginia Commonwealth University (VCU) Survey and Evaluation Research Laboratory (SERL). VACRS includes Part A data from the Eastern Virginia Medical School (EVMS), all Part B data, excluding ADAP, and Parts C and D data from the VCU Medical Center. This data is presented by health region because of regional reporting differences. The Southwest and Central regions have the most complete data in VACRS. Since EVMS data is included in the Eastern region, this data is mostly complete, but all of Part A is not reported. Northern and Northwest regions are both missing Part A data from the DC Eligible Metropolitan Area. The limitations in this data are presented so that data tables can be interpreted with an understanding of the sources included.

\*\*Core services include outpatient and ambulatory health services; pharmaceutical assistance; substance abuse outpatient services; oral health; medical nutritional therapy; health insurance premium assistance; home health care; hospice services; mental health services; early intervention services; and medical case management, including treatment adherence services. The remaining 25% can be spent on support services including outreach; medical transportation; language services; respite care for persons caring for individuals with HIV/AIDS; and referrals for health care and other support services.

tion therapy because most regimens contain at least two of these drugs (Avert, 2007). Half of the clients (45.8%) received treatment for opportunistic infections and 45.5% received Non-Nucleoside Reverse Transcriptase Inhibitors. Forty percent of clients used another protease inhibitor with Ritonavir. CD4 counts of ADAP clients were evenly distributed throughout four categories: 0 to 200 (29.6%), 201 to 350 (24.3%), 351 to 500 (24.4%) and over 500 (21.6%).

Between July 2006 and June 2007, 3,176 clients were served by ADAP in Virginia for an average monthly cost of \$1.9M and an average monthly cost per person of \$1,239. This is a 3.3% increase from the average monthly cost per person (\$1,486) the previous year. The growth rate in active clients has decreased 0.8% for the last year, with the largest decrease in the Southwest region(-2.4%). This decline is mainly due to the impact of Medicare Part D. Overall, the average length of time a client remains on ADAP is increasing. In March 2004, clients were on ADAP an average of 43 months. By June 2007, the average was five months longer (48 months).

### VACRS Demographics (Table 3)

Between January and December 2006, 4,208 clients were reported as receiving care in VACRS. Clients

were primarily male (62.83%), between the ages of 25-44 (52.14%) and African American (59.74%). The majority of clients had an AIDS status (41.84%), followed by HIV (36.94%) and HIV/AIDS status not known (18.55%). The remaining were HIV negative (0.29%) or the status was unknown (2.39%). The most frequent reported risk of infection for HIV was heterosexual contact (39.26%).

### VACRS Service Utilization

During 2006, 2,155 (51%) patients received ambulatory/outpatient medical care, with an average number of 7.08 visits per client. The minimum number of visits was one and the maximum was 119 visits. Of the clients receiving case management, the average number of face to face visits was 6.67 and the average number of other case management visits was 6.40. Half (50%) of the clients reported as receiving medical care in VACRS received face to face case management and a third (33%) received other case management. Seven hundred and seventy (18%) clients received co-pays for medication. The minimum number of co-pays was one and the maximum was 64. On average each client received five co-pays for medication in 2006 (Table 4).

**Table 2** ADAP Reporting System -Client Demographics (January to December 2006)

		Northwest		Northern		Southwest		Central		Eastern		Unknown		Calendar Year-to-Date	
		Count	Percent %	Count	Percent %	Count	Percent %	Count	Percent %	Count	Percent %	Count	Percent %	Count	Percent %
Total Clients Served		329	100.00	851	100.00	433	100.00	767	100.00	1114	100.00	24	100.00	3518	100.00
Gender	Male	247	75.08	551	64.75	320	73.90	522	68.06	801	71.90	16	66.67	2457	69.84
	Female	82	24.92	290	34.08	112	25.87	241	31.42	313	28.10	8	33.33	1046	29.73
	Unknown	0	0.00	10	1.18	1	0.23	4	0.52	0	0.00	0	0.00	15	0.43
Race	White	163	49.54	204	23.97	217	50.12	184	23.99	289	25.94	0	0.00	1057	30.05
	African-American/Black	132	40.12	367	43.13	186	42.96	526	68.58	751	67.41	3	12.50	1965	55.86
	Asian	4	1.22	18	2.12	2	0.46	1	0.13	6	0.54	0	0.00	31	0.88
	Native Hawaiian/Pacific Islander	0	0.00	1	0.12	0	0.00	0	0.00	1	0.09	0	0.00	2	0.06
	American Indian, Aleutian, Eskimo	0	0.00	4	0.47	0	0.00	5	0.65	6	0.54	0	0.00	15	0.43
	Other	7	2.13	127	14.92	10	2.31	21	2.74	23	2.06	0	0.00	188	5.34
	Unknown Race	23	6.99	130	15.28	18	4.16	30	3.91	38	3.41	21	87.50	260	7.39
Hispanic ethnicity	Yes	13	3.95	151	17.74	15	3.46	40	5.22	33	2.96	0	0.00	252	7.16
	No	158	48.02	263	30.90	307	70.90	240	31.29	584	52.42	1	4.17	1553	44.14
	Unknown	158	48.02	437	51.35	111	25.64	487	63.49	497	44.61	23	95.83	1713	48.69
	White Male	134	40.73	150	17.63	178	41.11	140	18.25	234	21.01	0	0.00	836	23.76
	White Female	25	7.60	35	4.11	34	7.85	29	3.78	52	4.67	0	0.00	175	4.97
	AA Male	84	25.53	195	22.91	117	27.02	333	43.42	506	45.42	1	4.17	1236	35.13
	AA Female	47	14.29	169	19.86	69	15.94	188	24.51	244	21.90	2	8.33	719	20.44
	Hisp Male	8	2.43	110	12.93	9	2.08	25	3.26	25	2.24	0	0.00	177	5.03
	Hisp Female	5	1.52	41	4.82	6	1.39	15	1.96	8	0.72	0	0.00	75	2.13
	Other Race/Gender	26	7.90	151	17.74	20	4.62	37	4.82	45	4.04	21	87.50	300	8.53
Age	Less than 13	2	0.61	18	2.12	2	0.46	2	0.26	3	0.27	1	4.17	28	0.80
	13 to 19 years	1	0.30	1	0.12	0	0.00	1	0.13	2	0.18	0	0.00	5	0.14
	20 to 44 years	168	51.06	461	54.17	221	51.04	389	50.72	564	50.63	14	58.33	1817	51.65
	45 to 64	152	46.20	346	40.66	194	44.80	352	45.89	520	46.68	9	37.50	1573	44.71
	65 or older	6	1.82	25	2.94	16	3.70	23	3.00	25	2.24	0	0.00	95	2.70
Region	Unknown	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	24	100.00	24	100.00
	Northwest	329	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	329	100.00
	Northern	0	0.00	851	100.00	0	0.00	0	0.00	0	0.00	0	0.00	851	100.00
	Southwest	0	0.00	0	0.00	433	100.00	0	0.00	0	0.00	0	0.00	433	100.00
	Central	0	0.00	0	0.00	0	0.00	767	100.00	0	0.00	0	0.00	767	100.00
	Eastern	0	0.00	0	0.00	0	0.00	0	0.00	1114	100.00	0	0.00	1114	100.00
Drug Type (multiple response)	Protease Inhibitor	163	49.54	433	50.88	216	49.88	436	56.92	639	57.62	14	58.33	1901	54.13
	NNRTI	180	54.71	437	51.35	195	45.03	313	40.86	466	42.02	6	25.00	1597	45.47
	NRTI	325	98.78	820	96.36	392	90.53	717	93.60	1071	96.57	24	100.00	3349	95.36
	OI Treatment (not TB)	131	39.82	389	45.71	167	38.57	389	50.78	524	47.25	7	29.17	1607	45.76
	Hep C Treatment	2	0.61	0	0.00	2	0.46	0	0.00	8	0.72	0	0.00	12	0.34
	Vaccines	8	2.43	92	10.81	103	23.79	62	8.09	106	9.56	1	4.17	372	10.59
	Fusion	3	0.91	8	0.94	7	1.62	4	0.52	13	1.17	0	0.00	35	1.00
	Combination Agent	43	13.07	161	18.92	44	10.16	73	9.53	108	9.74	1	4.17	430	12.24
	TB Treatment	10	3.04	43	5.05	11	2.54	41	5.35	23	2.07	1	4.17	129	3.67
Other PI used with Ritonavir	No	190	57.75	523	61.46	270	62.36	422	55.02	614	55.12	19	79.17	2038	57.93
	Yes	139	42.25	328	38.54	163	37.64	345	44.98	500	44.88	5	20.83	1480	42.07
CD4 Count	0 to 200	41	28.47	176	34.11	50	26.60	157	30.08	109	25.47	0	0.00	533	29.61
	201 to 350	40	27.78	131	25.39	40	21.28	127	24.33	100	23.36	0	0.00	438	24.33
	351 to 500	32	22.22	116	22.48	61	32.45	99	18.97	132	30.84	0	0.00	440	24.44
	over 500	31	21.53	93	18.02	37	19.68	139	26.63	87	20.33	2	100.00	389	21.61

Table 3		Ryan White Data Reporting System (VACRS) -Client Demographics (January to December 2006)													
		Northern		Northwest		Southwest		Central		Eastern		MAJ		Virginia	
		Count	Percent %	Count	Percent %	Count	Percent %	Count	Percent %	Count	Percent %	Count	Percent %	Count	Percent %
Total Clients Served		590	100.00	370	100.00	869	100.00	1266	100.00	1039	100.00	74	100.00	4208	100.00
Gender	Male	351	59.49	247	66.76	592	68.12	750	59.24	671	64.58	33	44.59	2644	62.83
	Female	238	40.34	123	33.24	274	31.53	503	39.73	358	34.46	41	55.41	1537	36.53
	Transgender *	0	0.00	0	0.00	2	0.23	9	0.71	10	0.96	0	0.00	21	0.50
	Unknown	1	0.17	0	0.00	1	0.12	4	0.32	0	0.00	0	0.00	6	0.14
Race (multiple response)	Hispanic	78	13.20	18	4.86	26	2.99	66	5.21	40	3.85	4	5.41	232	5.51
	White	197	33.33	149	40.27	370	42.53	162	12.78	249	23.94	7	9.46	1134	26.92
	African-American	286	48.39	155	41.89	385	44.25	892	70.35	740	71.15	59	79.73	2517	59.74
	Asian	11	1.86	0	0.00	4	0.46	0	0.00	5	0.48	0	0.00	20	0.47
	Pacific Islander	0	0.00	0	0.00	1	0.11	3	0.24	2	0.19	0	0.00	6	0.14
	Native American	1	0.17	0	0.00	2	0.23	24	1.89	2	0.19	1	1.35	30	0.71
	Other Race	0	0.00	1	0.27	5	0.57	2	0.16	27	2.60	0	0.00	35	0.83
	Unknown Race	130	22.00	68	18.38	117	13.45	221	17.43	31	2.98	10	13.51	577	13.70
HIV status	AIDS	163	27.63	77	20.81	350	40.28	583	46.94	564	54.28	13	17.81	1750	41.84
	HIV positive, not AIDS	206	34.92	173	46.76	238	27.39	446	35.91	451	43.41	31	42.47	1545	36.94
	HIV positive, AIDS status unknown	176	29.83	112	30.27	275	31.65	170	13.69	23	2.21	20	27.40	776	18.55
	HIV negative (affected)	0	0.00	0	0.00	0	0.00	11	0.89	0	0.00	1	1.37	12	0.29
	Unknown	45	7.63	8	2.16	6	0.69	32	2.58	1	0.10	8	10.96	100	2.39
Age	Infants (0 to 24 months)	4	0.68	1	0.27	2	0.23	36	2.85	0	0.00	2	2.70	45	1.07
	Children (2 to 12)	1	0.17	3	0.82	1	0.12	38	3.01	0	0.00	1	1.35	44	1.05
	Youth (13 to 24)	16	2.71	17	4.62	23	2.65	88	6.96	37	3.56	2	2.70	183	4.35
	25 to 44 years	319	54.07	182	49.46	463	53.28	613	48.50	577	55.53	38	51.35	2192	52.14
	45 years or older	250	42.37	165	44.84	380	43.73	489	38.69	425	40.90	31	41.89	1740	41.39
HIV risk factors	Unreported Risk	188	31.86	162	43.78	144	16.57	200	15.80	135	12.99	23	31.08	852	20.25
	MSM	110	18.64	83	22.43	276	31.76	289	22.83	344	33.11	8	10.81	1110	26.38
	IDU	54	9.15	23	6.22	44	5.06	105	8.29	70	6.74	15	20.27	311	7.39
	Heterosexual Contact	209	35.42	89	24.05	337	38.78	543	42.89	449	43.21	25	33.78	1652	39.26
	Hemophilia	0	0.00	0	0.00	3	0.35	4	0.32	0	0.00	0	0.00	7	0.17
	Perinatal Exposure	3	0.51	2	0.54	2	0.23	84	6.64	2	0.19	0	0.00	93	2.21
	Other Risk	3	0.51	1	0.27	19	2.19	6	0.47	33	3.18	2	2.70	64	1.52
	Blood Products	9	1.53	1	0.27	6	0.69	2	0.16	1	0.10	0	0.00	19	0.45
	MSM/IDU	14	2.37	9	2.43	38	4.37	33	2.61	5	0.48	1	1.35	100	2.38
	Received both CM and Medical Services from RW	426	72.08	343	92.70	782	89.89	706	55.68	792	76.15	74	100.00	3123	74.13
	Yes	165	27.92	27	7.30	88	10.11	562	44.32	248	23.85	0	0.00	1090	25.87

\*Includes MTF and FTM

Table 4		Service utilization, Virginia (2006)			
	Unduplicated Client Count	Average Visits per Client	Minimum Number of Visits	Maximum Number of Visits	Percentage of Total Clients
Ambulatory/Outpatient Medical Care	2155	7.08	1	119	51.15
Case Management (Face to Face)	2097	6.67	1	79	49.77
Case Management (Other)	1431	6.4	1	103	33.97
Co-Pays: Medications	770	5.15	1	64	18.28
Treatment adherence counseling	669	4	1	27	15.88
Client advocacy	544	7.6	1	45	12.91
Health education/Risk Reduction/Prevention	537	3.58	1	83	12.75
Dental Care	473	2.48	1	12	11.23
Transportation Services	465	5.19	1	64	11.04
Nutritional Counseling	277	1.31	1	6	6.57

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